

I claim:

1. A load-sensing element comprising:

a block of substantially rectangular cross section

which is braced on a first end and which is adapted to receive a load to be measured on a second end; and

5 a single strain gauge disposed on the block;

wherein the block is pierced by an opening which is shaped such that at least two joints are created on each of a top side of the block and an underside of the block;

wherein the two joints on one of the top side and lower side of the block are offset from one another so as to compensate for a force eccentricity which occurs upon non-central introduction of the load to be measured; and

wherein the single strain gauge is disposed on the block in a vicinity of one of the offset joints.

2. The load-sensing element of claim 1, wherein a shoulder is formed on the top side of the block so as to offset the two joints on the top side of the block.

3. The load-sensing element of claim 2, wherein the two joints on the top side of the block each have a same material thickness.

4. The load-sensing element of claim 1, wherein the opening in the block comprises two different shaped portions.

5. The load-sensing element of claim 4, wherein the two different shaped portions of the opening have different heights.

6. The load-sensing element of claim 4, wherein the one of the two different shaped portions is substantially circular, and

the other of the two different shaped portions is substantially oval.

7. The load-sensing element of claim 6, wherein the offset joints are respectively positioned above or below the substantially circular portion of the hole and the substantially oval portion of the hole.

8. The load-sensing element of claim 7, wherein the single strain gauge is disposed on the block in a vicinity of the one of the offset joints that is positioned above or below the substantially oval portion of the opening.

9. The load-sensing element of claim 1, wherein the offset is provided in a middle portion between the two joints on the top side of the block.

10. An electronic scale comprising:

four load-sensing elements each respectively arranged  
on one of four branches of a Wheatstone Bridge circuit  
arrangement;

5            wherein each of the four load-sensing elements  
comprises a block of substantially rectangular cross section  
which is pierced by an opening that is shaped to form offset  
adjacent pivot points for compensating for a force eccentricity  
which occurs upon non-central introduction of a load to be  
10           measured;

             wherein only one strain gauge is disposed in each of  
the four branches of the Wheatstone Bridge circuit arrangement in  
association with one of the four load-sensing elements for  
measuring deformation at one of the offset adjacent pivot points  
15           of each of the four load-sensing elements; and

             wherein respective diametrically opposed pairs of the  
four strain gauges are disposed to be deformed in opposite  
directions.

11. The electronic scale of claim 10, wherein the four strain gauges comprise a first diametrically opposed pair of strain gauges and a second diametrically opposed pair of strain gauges, and wherein the first diametrically opposed pair of strain gauges is arranged with an upward orientation and the second diametrically opposed pair of strain gauges is arranged with a downward orientation.

12. The electronic scale of claim 10, wherein signal changes in the load-sensing elements disposed in adjacent branches of the Wheatstone Bridge circuit arrangement are added together.